REMARKS

Undersigned Applicants' representative wishes to thank Examiner Ferguson for the helpful and courteous discussion regarding the merits of this application held on January 9, 2007. The substance of this discussion will be expanded upon in the remarks made below. The suggestions made by the Examiner in both the interview and the Office Action have been adopted, therefore obviating the indicated rejections.

In addition, Applicants wish to thank Examiner Ferguson for withdrawing all previous rejections.

The rejection of the claims under 35 USC § 112, is respectfully traversed.

As discussed with the Examiner Ferguson in the above mentioned interview, the Application, as originally filed, clearly discloses the wavelength of interest for a typical polymer between 4 μm and 200 μm or more; for use in the visible region between 400 μm and 700 μm; for use in the infrared region between 1 μm and 2.5 μm. (page 4, paragraph [0021]).

It is thus clear that one of ordinary skill in the pertinent art, when reading the claims in light of the supporting specification, would have been able to ascertain the claims with a reasonable degree of precision and particularity. See *Ex parte* Wu, 10 USPQ 2d 2031, 2033 (B.P.A.I. 1989); *In re* Moore, 439 F.2d 1232 169 USPQ 236, 238 (C.C.P.A. 1971); *In re* Hammack, 166 USPQ at 208.

Thus, it is clear that the language of the claims read in light of the specification. Further, it is well settled that the "language of the claims, read in the light of the specification" is to be considered when determining whether the claims are definite.

(Allen Archery Inc. v. Browning Mfg. Co., 819 F.2d 1087, 2 USPQ 2d 1490, 1494 (Fed. Cir. 1987). This precept has been incorporated into the MPEP, which states that

> "[t]he meaning of every term used in any of the claims should be apparent from the descriptive portion of the specification with clear disclosure as to its import." (MPEP §608.01 (o).)

See also:

> "[t]he meaning of the terms in the claims may be ascertainable by reference to the description" (37 C.F.R. §1.75).

Thus, the law is clear that:

> "if the claims, read in the light of the specification, reasonably apprise those skilled in the art both of the utilization and scope of the invention, and if the language is as precise as the subject matter permits, the courts can demand no more." (North Am. Vaccine, Inc. v. American Cyanamid Co., 7 F.3^{d} 1571, 28 USPQ 2d 1333, 1339 (Fed. Cir. 1993).

Clearly, Claim 1 is not indefinite. Applicants respectfully request the withdrawal of the rejection.

The rejection of the claims under 35 U.S.C. § 103 (a) over US Patent 4,540,623 to Im et al., is respectfully traversed.

What distinguishes the claims of the present application from the above cited prior art reference are as follows:

1. The claims as originally filed recite a multilayered structure wherein the "alternating layers are comprised of different polymers exhibiting differences in the index of refraction **and** in the elastic moduli" (Claim 1, lines 6-7, bold emphasis added). The above cited prior art reference neither discloses nor suggests elastic moduli.

2. Examiner Ferguson has correctly pointed out that the reference discloses that good optical properties are observed even if the adjacent layers comprising the various transparent thermoplastic materials possess refractive indices which are different from one another (column 7, lines 39-43).

However, as discussed with Examiner Ferguson in the above mentioned meeting, the above disclosure must be considered in light of the additional disclosure of Im et al. which define the limits of the differences of the index of reflection as being not more than about 0.01 and preferably less than about 0.002 units. Thus, the reference states:

> A condition for transparency of carbonate polymer containing blends such as those as are used in this invention is a substantial equality of the refractive indices of the polymer constituents. In order to obtain highly transparent blends, the copolymer additives most advantageously have a refractive index which differs by not more than about 0.01, preferably less than about 0.002 unit from that of carbonate polymer. (Column 4, lines 6-10)
>
> Especially preferred thermoplastic materials employed in preparing carbonate polymer containing transparent blends include those prepared from the polymerization of styrene and acrylonitrile such that said styrene/acrylonitrile (SAN) copolymer contains an amount of acrylonitrile (AN) such that said copolymer has a refractive index which very nearly matches that of the carbonate polymer, preferably within about 0.002 unit of that of carbonate polymer. (Column 4, lines 33-41)
>
> The SAN containing about 5 to about 8 weight percent content of AN has a refractive index of about 1.584 to about 1.586. This preferred additive exhibits a refractive index which very nearly equals that of commercially available carbonate polymer, which exhibits a refractive index of about 1.586. (Column 4, lines 48- 53)
>
> Other preferred copolymers employed in preparing transparent carbonate polymer containing blends include those prepared from the polymerization of styrene and acrylic acid such that said styrene/acrylic acid (SAA) copolymer contains an amount of acrylic acid (AA) such that said copolymer has a refractive index which very nearly matches that of the carbonate polymer, preferably within about 0.002 unit of that of carbonate polymer. For example, a SAA of the present invention comprises about 1 to about 8 weight percent of AA, preferably about 7

> to about 8 weight percent AA; and about 92 to less than about 100 weight percent styrene. Such a copolymer has a refractive index which nearly equals that of a commercially available carbonate polymer. (Column 5, lines 3-17)

In contradistinction, the present claims recite differences in the index of refraction of from 0.05 to 4 units.

Clearly, Im et al. teaches away from the multilayer structure of the present claims reciting that the alternating layers exhibit differences in the refractive index of 0.05 to 4 units.

3. The present claims require that the refractive index of the component (a) or component (b) is varied by tensile, compressive or shear force. Im et al. neither discloses nor suggests variable tensile, compression or shear.

Accordingly, Im neither discloses nor suggests the claims of the present invention. Applicants respectfully request the withdrawal of the rejection.

Applicants submit that the application is now ready for allowance and early notification to that effect will be greatly appreciated.

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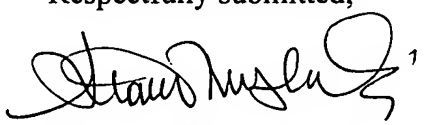
Respectfully submitted,



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MARKED-UP SHEET

1. (Currently amended) A multilayer structure comprising,

a plurality of at least two alternating layers A and B represented by formula $(AB)_x$, where $x = 2^n$, and n is in the range of from 4 to 15;

wherein layer A is comprised of component (a) and layer B is comprised of component (b);

said alternating layers are comprised of different polymers exhibiting differences in the index of refraction and in the elastic moduli; wherein said differences in the index of refraction are between 0.05 and 4 units;

wherein the layer thickness of said layer A and B are less than one quarter of the wavelength of interest;

wherein said multilayer polymer structure behaves as an effective medium and wherein said structure exhibits a single refractive index;

wherein said effective medium polymeric materials are transparent; and

wherein the refractive index of said multilayered structure effective medium material [can be] is varied by tensile, compressive or shear force.